

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 6, 8-10, 29-33, and 35-38 are presently active in this case. Claims 2-4, 7, and 11-28 were cancelled by previous amendments. The present Amendment amends Claims 1, 6, 10, 29 and 32, and adds new Claims 35-38 without introducing any new matter, and cancels Claims 5 and 34 without prejudice or disclaimer.

In the December 8, 2010 Office Action, Claims 1, 5-6, 8-10 and 29-34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Zhang (U.S. Patent No. 6,810,259) in view of Nakabayashi et al. (U.S. Patent Publication No. 2003/0112810, hereinafter “Nakabayashi”).

Applicants thank Examiner Elliott for the courtesy of an interview granted to Applicants’ representative Nikolaus P. Schibli, Ph.D., Reg. No. 56,994 on February 17, 2011, during which the pending issues of this case were discussed. Examiner Elliott suggested claim amendments related to the short/long packet transmission routing that are discussed in Applicants’ third embodiment. Such claim amendments are now incorporated into the independent claims. Moreover, Examiner Elliott said that these amendments should overcome the pending rejection, and that further search and/or consideration would be required.

In response, Applicants’ independent Claim 1 is amended to recite features related to the short/long packet transmission, and these features find non-limiting support in Applicants’ disclosure as originally filed, for example in paragraphs [0201]-[0203] and in Figures 20A-20B of the published Application with Publication No. 2007/0280192. Independent Claims 6, 29 and 32 are amended to recite analogous features in the context of the respective claim language, and dependent Claim 2 is amended to address an issue on antecedent basis. No new matter has been added.

Moreover, new Claims 35-38 are added, depending from independent Claims 1, 6, 29, and 32, respectively. New Claims 35-38 recite features related to cost estimation to determine routes, and find non-limiting support in paragraphs [0205]-[0213], Figure 23 in conjunction with paragraph [0174]. No new matter has been added.

In response to the rejection of Applicants' independent Claim 1 under 35 U.S.C. § 103(a), Applicants respectfully traverse the rejection, and request reconsideration thereof, as next discussed.

Briefly summarizing, Applicants' independent Claim 1 is directed to packet transmission system, that includes a plurality of wireless base stations; and one or more terminal devices belonging to one of the wireless base stations. Moreover, each of the wireless base stations has, *inter alia* a short packet route control table and a long packet route control table that indicate for each of the other wireless base stations that structure the network which wireless base stations are along a first route for a short packet and along a second route for a long packet, and each of the wireless base stations is configured to, upon receiving a packet, identify a wireless base station to which the source terminal device or the destination terminal device currently belongs by determining whether the packet is a short packet or a long packet to find a next hop based on either the short packet route control table or the long packet route control table, respectively, to find the next hop, and transmit the packet to the next hop.

Turning now to the applied references, Zhang is directed to a location update protocol method used in mobile communications networks for managing subscriber profile information with a local profile subscriber list 150 and a global/mirrored profile subscriber list 160 that are both stored in a database 132 of each base station 114. (Zhang, Abstract, Figs. 3B, and 4A-4B, col. 9, ll. 21-27, col. 10, ll. 39-41.) With respect to Zhang's Figures 4A-4B, and 10A a procedure is described that is performed at the base station 114 to perform

a location update of mobile hosts 120, upon receiving a registration message from a new mobile host 120. (Zhang, col. 30, ll. 5-24.) Regarding the pointer address value of field 168 of the global/mirrored profile subscriber list 160, Zhang explains that this field stores a memory address pointing to an associated subscriber profile stored in the profile data base 132 at the local base station. (Zhang, col. 11, ll. 8-12, Fig. 3B.) Moreover, for each cache entry 162 which is not included in the mirror list, the profile pointer field 168 is empty. (Zhang, col. 11, ll. 12-14.)

In addition, a base station location field 166 stores the IP address of an associated owner base station which currently owns the profile of the associated subscriber. (Zhang, col. 10, ll. 50-55.) However, Zhang's global/mirrored profile subscriber list 160 fails to teach a short packet route control table and a long packet route control table that indicate for each of the other wireless base stations that structure the network which wireless base stations are along a first route for a short packet and along a second route for a long packet, as required by Applicants' Claim 1.

Regarding the reference Nakabayashi, this reference is directed to a method of selecting a wireless bridge 10 from among a plurality of wireless bridges, each of these bridges having a communication quality at a predetermined level or higher. (Nakabayashi, Abstract, ¶¶ [0016]-[0017]). To select a wireless bridge, in Nakabayashi, a routing table 20, that is located inside the wireless bridge 10, can be used based on the reception level or a bridge priority value. (Nakabayashi, ¶¶ [0059], [0073], see also Figs. 1 and 5.) A wireless bridge with the lowest bridge priority value in the network is the root bridge. (Nakabayashi, ¶ [0044], ¶ [0059]). Also, Nakabayashi's routing table 20 contains the port number 21, the bridge ID 22, and the destination addresses 23, and the destination address field 23 contains broadcasting/multicasting addresses. (Nakabayashi, ¶ [0051], Fig. 5). As shown in Nakabayashi's Figure 5, the routing table 20 can link a port number 21, a bridge ID 22 with a

plurality of destination addresses 23 of input/output ports of the corresponding bridge. (Nakabayashi, ¶ [0050]). Moreover, a parameter table 30, located in the wireless bridge 10, has a plurality of sub-tables 30-i including information on each port number 21 that is stored in the routing table 20. (Nakabayashi, ¶¶ [0047], [0052]-[0054], Fig. 6.)

By virtue of connection strengths and issues related to wireless LAN networks, Nakabayashi explains that the wireless bridge 10 checks for neighboring wireless bridges where “the signal reception level is higher than a predetermined threshold.” (Nakabayashi, ¶ [0067], ll. 1-6). Then, wireless bridge 10 selects those wireless bridges as STP-applicable bridges, allocates the logical port numbers to them, and generates the parameter sub-tables 30-i of parameter table 30. (Nakabayashi, ¶ [0067], ll. 6-9.) According to the parameter table 30 of Nakabayashi’s Figure 6, a root side bridge ID, recorded in Field 34, is recorded in association with the connected bridge ID, recorded in Field 35, for the same port ID 31. (Nakabayashi, ¶ [0059], Fig. 6.) The root side bridge is the bridge that is adjacent to the port, and the connected bridge is the bridge that is actually connected to the port or a neighboring wireless bridge corresponding to a logical port (Nakabayashi, ¶ [0059], ll. 5-10.) Moreover, in the routing table 20 of Nakabayashi, each port number 21 is associated with a connected bridge ID and *a destination address 23 of terminals existing in the direction of the connected bridge.* (Nakabayashi, ¶ [0050], ll. 4-7.)

However, Nakabayashi fails to teach “a short packet route control table and a long packet route control table that indicate for each of the other wireless base stations that structure the network which wireless base stations are along a first route for a short packet and along a second route for a long packet,” as required by Applicants’ Claim 1.

Therefore, even if the combination of Zhang and Nakabayashi is assumed to be proper, the cited passages of the combination fails to teach every element of Applicants’ Claim 1. Accordingly, Applicants respectfully traverse the rejection, and request

reconsideration of this rejection.

Independent Claims 6, 29, and 32 recite features that are analogous to the features that have been argued above with respect to independent Claim 1, although they are different in scope and/or directed to different statutory categories. Accordingly, for the reasons stated above for the patentability of Claim 1, Applicants respectfully submit that the rejections of Claims 6, 29, and 32, and the rejections of all associated dependent claims, are also believed to be overcome.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1, 6, 8-10, 29-33, and 35-38 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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